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ABSTRACT

Congress established the Strengthening Research Library Resources Program through Title II-C of the 1976 Education Amendments to the Higher Education Act of 1965 to promote research and education throughout the United States by financially assisting major research libraries. Since 1978, nearly $70 million in grants have been distributed to U.S. research libraries in three program areas: bibliographic control (access), preservation, and collection development. This study, whose aim is to trace how the Title II-C program has facilitated scholarly research, consists of two components. Part One is a series of brief profiles presenting data pertaining to program funding by Congress; the number and size of grants awarded; the nature of institutions receiving Title II-C funding; the distribution of projects among the program's three primary funding priorities; and the geographical distribution of the 360 grants awarded between 1978 and 1989. Part Two consists of 22 representative case studies, 11 of which illustrate the scope of project activity within the three program priorities. The remaining case studies describe the cumulative contributions to a single academic discipline: music. (7 tables) (MAB)

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THE HIGHER EDUCATION ACT, TITLE II C PROGRAM: STRENGTHENING RESEARCH LIBRARY RESOURCES

A TEN YEAR PROFILE AND AN ASSESSMENT OF THE PROGRAM'S EFFECTS UPON THE NATION'S SCHOLARSHIP

EXECUTIVE SUMMARY

By

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Washington, DC

THE HIGHER EDUCATION ACT, TITLE II-C PROGRAM:
STRENGTHENING RESEARCH LIBRARY RESOURCES

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THE HIGHER EDUCATION ACT, TITLE II-C PROGRAM: STRENGTHENING RESEARCH LIBRARY RESOURCES

A Ten Year Profile and An Assessment of the Program's Effects Upon The Nation's Scholarship

INTRODUCTION

Congress established the Strengthening Research Library Resources Program through Title II-C of the 1976 Education Amendments to the Higher Education Act of 1965 (P.L. 94-482). Section 231 of the Act notes that

> the expansion in the scope of educational research programs and the rapid increase in the worldwide production of recorded knowledge have placed unprecedented demands upon major research libraries, requiring programs and services that strain the capabilities of cooperative action and are beyond the financial competence of individual or collective library budgets.[1]

In order to address these needs, the Title II-C program was devised "...to promote research and education of higher quality throughout the United States by providing financial assistance to major research libraries."[2] Almost $70,000,000 has been distributed to the nation's research libraries in the twelve years since the first Title II-C grants were awarded in 1978.[3] Grants are made in three program areas: bibliographic control (access), preservation, and collection development.

When Congress established a grant program "...intended to help research libraries maintain and strengthen their collections, which constitute an important national resource essential to scholarship and research, and to assist them in making their holdings available to other libraries whose users have need for research materials,"[4] it set in motion a dynamic process which has resulted in hundreds of thousands of research materials, in all subjects and formats, being made accessible to scholars in institutions large and small. Few areas of scholarly research have been untouched by the benefits of Title II-C, and the library community has utilized the program to extend its commitment to resource sharing and exploit new technologies for the ultimate good of library users throughout the nation. Twelve years later the value to the nation of the program known as Title II-C is evident.

Little has been written about the Title II-C program.[5] This study is a partial response to an earlier call for an assessment of Title II-C's impact on national scholarship. Abigail Studdiford's 1982 review of projects funded under Title II-C recommended "[t]hat the impact of the Title II-C Program be measured, possibly through the establishment of base-line data for project performance or by measuring scholarly output in a subject area supported by the program."[6] The aim of this study, undertaken through the auspices of the Association of Research Libraries and with funding provided by the H.W. Wilson Foundation, is to trace how the Title II-C program has facilitated scholarly access to research materials across the United States.

The study consists of two components. Part One is a series of brief profiles presenting data pertaining to program funding by Congress; the number and size of grants awarded; the nature of institutions receiving Title II-C funding; the distribution of projects among the program's three primary funding priorities; and the geographical distribution of the three hundred and sixty grants awarded between 1978 and 1989. Part Two consists of twenty two representative case studies, eleven of which illustrate the scope of project activity within the three program priorities. The remaining case studies describe the cumulative contributions of Title II-C funded projects to a single academic discipline: music.

The present study is intended to provide data not readily available in published form and to give evidence of the importance of the Title II-C Program to libraries' efforts toward developing, preserving,

and sharing their resources to serve the Nation's scholars. This is the executive summary of the study; for the unabridged assessment, refer to the long version of this document, also available from the Association of Research Libraries).

FINDINGS

1. The Title II-C program has provided significant benefits to scholars throughout the United States through the increased ability of the nation's research libraries to acquire, preserve and make available materials in a range of formats across a wide spectrum of subject areas. Although statistical data concerning Title II-C grants has not been systematically collected,[7] evidence of the program's impact can be gauged by examining the history of particular grant projects or focusing on the impact of Title II-C funding on a particular academic discipline.

2. A large number of Title II-C projects are pilot projects, undertaken to develop systems and procedures which are subsequently utilized by other libraries. Scholars throughout the country reap the benefits of projects which have developed new methods of providing bibliographic access to material, preserving fragile resources, or enhancing collections of specialized research material.

3. Title II-C projects have utilized a wide variety of library technologies, from the creation of machine-readable cataloging records to the utilization of preservation techniques such as deacidification.

4. Title II-C projects have focused not only on books but on materials in all formats; for example, government documents, manuscripts, sheet music, maps, photographs, playbills, oral history tapes, films and machine readable data files. The subject areas addressed through Title II-C projects have covered a range from sciences to social sciences to humanities.

5. Seventy-three percent of total Title II-C funding between 1977 and 1988 has been devoted to projects which emphasize bibliographic access. Preservation grants accounted for twenty-one percent, and collection development for six percent of total grant funding. Many projects have included all three Title II-C program priorities. A typical project which encompassed all three areas might involve acquiring new material to strengthen a specific collection, preserving fragile and deteriorating items within that collection, and making bibliographic records for that collection available through a national or local database.

6. Bibliographic access projects benefit the scholarly and research community by enabling them to access the resources of libraries throughout the country. These projects have focused on creating original records or converting manually-produced records to machine-readable form, and those records are often contributed to OCLC and RLIN, the nation's principal automated bibliographic utilities. Without the stimulus of Title II-C projects and funding, many of these materials would not have been included in these national bibliographic databases due to both the size of the collections and cost of work entailed.

7. Thirty-six grants for joint projects have been awarded through 1988. All but one of the joint projects have supported bibliographic access efforts. Forty-four institutions have participated in sixteen joint Title II-C projects through 1988. It is not uncommon for an institution to simultaneously receive an individual grant and participate in a joint project.

8. The nation's larger research libraries have received a high percentage of funds, reflecting the authorizing legislation, the importance and significance of their collections, needs, and ability to successfully complete projects. Many of these institutions have served as the primary grantee for joint projects; consequently, the total amount of grant funds awarded to a specific institution may include funds distributed to other institutions. Several of these same institutions have received funds as joint participants in projects in which they were not the primary grantee.

9. Large university libraries predominate as grantees, though smaller institutions consistently have received grants. Between 1978 and 1988, forty-one states and the District of Columbia benefited from the Title II-C program; only Arkansas, Idaho, Maine, Mississippi, Nevada, North and South Dakota, West Virginia and Wyoming have not received funds. New York, with fifty-two grants, received the largest number of awards, followed by Illinois (forty-four) and California (forty-three). Among the ten geographic regions into which the 1977 program regulations divided the nation, the midwest region received the highest number of grants, with a total of seventy, followed by the New York-Puerto Rico-Virgin Islands region with fifty-two and the California-Hawaii-American Samoa-Guam region with forty-seven.

10. With a finite number of research libraries, there has understandably been a recurring number receiving Title II-C grants, although each year's list of awards has included a sizeable proportion of first-time grants. Just under one-third of the ninety-eight direct grantees and primary grantees for multi-institutional projects have received five or more grants since 1978. Twenty-six libraries have received only one grant.

11. The average number of proposals submitted by institutions seeking Title II-C funding has increased with over ninety proposals submitted each year since 1984. The combination of the increasing number and and the static level of federal funding for the Title II-C program, has resulted in a reduction of the average grant size. During the first four years of the program, grant size averaged $238,000; between 1985 and 1988, the average grant was $150,000.

PART ONE: DATA PROFILES

TRENDS IN FEDERAL FUNDING OF TITLE II-C

Since 1977, Congressional appropriations for the Title II-C Program have totaled $64,246,000. The annual appropriation has ranged from zero (in 1977) to $6,000,000 in 1980 (SEE TABLE 1). The $64.2 million appropriated through 1988 represented less than forty percent of the total amount, $160,000,000, authorized by Congress. In no year between 1977 and 1988 did the Title II-C program receive an appropriation equal to the amount authorized.

Administration funding requests were made for only five years (1978-1982) of the program's twelve-year existence. The Reagan administration attempted to discontinue the program beginning in 1983 by eliminating funding from its annual budget request, but Congress continued to appropriate funds. The Bush administration eliminated Title II-C funds from its 1990 budget request, but requested $5,738,000 (the amount appropriated in 1990) for FY91.

NUMBER OF PROPOSALS SUBMITTED AND GRANTS AWARDED

The number of grant proposals submitted for funding under the Title II-C Program has fluctuated over the years, from a high of one hundred and one in 1978 to a low of seventy-one in 1980 (SEE TABLE 2). However, with the exception of 1987, the trend in recent years has been a gradual increase in the number of proposals submitted, with over ninety being received each year since 1984.[8] As the number of proposals has increased, so has the number of successful proposals receiving funding. The average number of successful proposals per year between 1978 and 1988 was thirty-three, with at least thirty-five proposals being funded each year since 1982.[9] The average number between 1985 and 1988 increased to 39.25. The percentage increase in funded proposals ranged from a low of twenty percent in 1978 to a high of forty-seven in 1985, with the average per year being thirty-eight percent. The continuing trend appears to be that well over one-third of the proposals submitted each year will be funded.

The preceding figures reflect changes in program regulations relating to the inclusion or exclusion of non-competing continuation grants. Such grants were awarded for the years 1979-1981 and again in the years since 1987, but only in 1979 and 1980 did they represent a sizeable proportion of the total number of funded proposals (nine of twenty-six and fourteen of twenty-two, respectively). In other years, non-competing continuation grants have constituted less than twenty percent of funded proposals, with the exception of 1987, when ten non-competing grants won twenty-seven percent of total funding.

Static levels of Congressional funding, combined with gradual increases in the number of proposals submitted and the relatively higher percentage of funded proposals, have caused the average grant size to diminish. Between 1985 and 1988, the average grant dropped to just $150,000, compared to an average of over $238,000 during the first four years of the program.[10]

INSTITUTIONAL ANALYSIS

In the eleven years beginning in 1978, ninety-eight libraries have been Title II-C grantees. In addition, twelve libraries that have never received a direct grant or been the primary grantee for a joint project have participated in multi-institutional joint projects, bringing the total number of libraries receiving Title II-C funds to one hundred and ten.[11] Of this total, eighty-six (seventy-eight percent) were situated in academic institutions with the greater number being publicly supported. Eighteen private non-academic institutions, and five public non-academic institutions, have received grants. (SEE TABLE 3) The predominance of large university libraries was well-established from the beginning of the program, given the emphasis of the authorizing legislation on major research libraries. Still, smaller

academic institutions have consistently received awards since the program's inception; with recent administrative changes that liberalize the criteria for qualifying as a research library, the number may increase. Thus far, however, these changes have not led to a significant alteration of the status quo relative to the institutional mix of funded projects.

Eighty-three of the funded libraries, including joint project participants, are members of the Association of Research Libraries. As of 1988, one hundred ARL libraries were eligible for Title II-C grants. Sixteen Canadian libraries and the three U.S. national libraries are ineligible for program funds. Of the one hundred eligible libraries, seventeen had not conducted a Title II-C project as of 1988.

The twenty-seven non-ARL libraries that have received funding since 1988 represent a broad range of smaller academic and/or highly specialized research institutions, ranging from Brandeis and Ohio Universities to the American Antiquarian Society and the Pierpont Morgan Library. Research-oriented public institutions, such as the Detroit Public Library and the University of Alaska, were also represented.

With a finite number of research libraries, there has understandably been a recurring number receiving Title II-C grants, although each year's list of awards has included a sizeable proportion of first-time grants. Just under one-third of the ninety-eight direct grantees and primary grantees for multi-institutional projects have received five or more grants since 1978. Twenty-six libraries have received only one grant. (SEE TABLE 4)

While the percentage of first-time grants has varied, it has averaged twenty-three percent per year. There has been no appreciable change in the mix of first-time awardees over the years.[12] (SEE TABLE 5)

The predominance of large university libraries was well-established from the beginning of the program, given the emphasis of the authorizing legislation on major research libraries. Many of these institutions have served as the primary grantee for joint projects; consequently, the total amount of grant funds awarded to a specific institution may include funds distributed to other institutions. Several of these same institutions have received funds as joint participants in projects in which they were not the primary grantee. With these factors in mind, the twenty-three libraries that received over $1,000,000 for the period 1978-1988 constituted over twenty percent of the total number of grantees.

Ten of the institutions that have received over $1,000,000 have served as primary grantees for joint projects. Including joint projects for which they have been the primary grantee, these libraries have received $39,201,211, or sixty-one percent of total Title II-C funds; excluding joint projects, these institutions have received $28,098,938, or forty-four percent of total Title II-C funds. If their portion of joint project funds is added to their direct individual grants, these twenty-three libraries have received close to half of total Title II-C funds.[13] Eleven of the twenty-three libraries have received over $1,500,000.

Thirty-six grants for joint projects have been awarded through 1988. All but one of the joint projects have supported bibliographic control efforts. Forty-four institutions have participated in sixteen joint Title II-C projects through 1988. It is not uncommon for an institution to receive an individual grant and to participate in a joint project simultaneously.

GEOGRAPHIC DISTRIBUTION OF GRANTS

From 1978 through 1988, forty-one states and the District of Columbia benefitted from the Title II-C program; only Arkansas, Idaho, Maine, Mississippi,[14] Nevada, North and South Dakota, West Virginia and Wyoming have not received funds. New York, with fifty-two grants, received the largest number of awards, followed by California and Illinois (each with forty-three).[15]

Among the ten national geographic regions which were specified in the 1977 program regulations, the midwest region received the highest number of grants, with a total of seventy, followed by the New York-Puerto Rico-Virgin Islands region with fifty-two and the California-Hawaii-American Samoa-Guam region with forty-one. (SEE TABLE 6)

Analysis of the geographical distribution of Title II-C grants confirms that the intent of the authorizing legislation -- that funds be awarded to major research libraries exclusively on the basis of institutional and collection strengths, and on the strength of project proposals as judged by peer review -- is being carried out.

TITLE II-C GRANT FOCUS

Since its inception, the Title II-C program has concentrated its funding priorities in three areas vital to the nation's research libraries: bibliographic access, preservation, and collection development (acquisitions). Grants have been made continuously in all three areas since the first grants were awarded in 1978, but from the beginning the emphasis has been on bibliographic access. This emphasis is due to several factors: the high priority placed by the program on project results; the priorities of applicant institutions that have resulted in a higher proportion of bibliographic control projects submitted for consideration; the desire of applicant institutions to take advantage of such technologically-based opportunities as Cooperative Conversion of Serials (CONSER), National Coordinated Cataloging Operations (NACO), and Archives and Manuscript Control (AMC) that could be exploited with Title II-C funding; recommendations of review panelists that in some instances display preference for bibliographic control projects; the tendency of applicant institutions to imitate previous successful projects, either their own or those of other institutions; and the proclivity of institutions to eliminate preservation/acquisitions components from multi-purpose proposals during the negotiation process, either because they are viewed as less important or because they involve smaller, discrete budget components that can more easily be pared away. Another element affecting the balance of the program's foci is the fact that many preservation and acquisitions projects require the inclusion of a bibliographic control component so that the project results can be disseminated to the scholarly community.

Without question, bibliographic access projects have received an extraordinarily high percentage of Title II-C funds. Bibliographic access projects were supported by $49,949,226, or seventy-three percent of total funds.[16] Department of Education figures show that preservation received $13,219,195 and acquisitions $4,069,843 (twenty-one percent and six percent of total funds, respectively). However, it would be erroneous to assume that applications proposing preservation and acquisitions projects were not regularly submitted and funded, particularly when combined with bibliographic control projects.[17] (SEE TABLE 7)

The Department of Education published a summary of the program's major activity in 1988.[18] In assessing Title II-C's programmatic focus, DOE staff based its finding upon the amount of federal grant funds awarded as represented in each project's final, negotiated budget; institutional contributions, whether in cash or in kind, have not been included. The Department summary categorized the program focus as follows:

Bibliographic control.....174 grants
Preservation.....39 grants
Collection development.....7 grants
Bibliographic control/
Preservation.....82 grants
Bibliographic control/
Collection development.....24 grants
Preservation/
Collection development.....4 grants

Bibliographic control/
Preservation/Collection
development.....25 grants

It is interesting to note the number of preservation and collection development grants, particularly when counted as component parts of multi-purpose projects. Viewed in this light, 309 contained bibliographic control components, one hundred and fifty-one contained perservation components, and sixty-four contained collection development components. While these figures do not alter the fact that most Title II-C grants were awarded to bibliographic control projects, they disprove the widely-held assumption that only bibliographic control proposals meet with funding success.

THE IMPACT OF TITLE II-C

The Title II-C program has distributed $69,913,264 to the nation's research libraries over a twelve-year period. One hundred and ten libraries have participated in Title II-C programs through three hundred and ninety-two grants.[19] Part One of this study has looked at how the Title II-C program has been funded and how grants have been distributed.

What have those grants accomplished? How have the nation's scholars benefitted? Since statistical data concerning Title II-C grants has not been systematically collected that details the number of books acquired, materials preserved or bibliographic records created, Title II-C's impact must be measured by looking at how individual institutions, or groups of institutions, have utilized Title II-C funds for bibliographic control, collection development or preservation. Part Two of this study surveys representative institutions to provide examples of how research libraries have chosen to carry out the legislation's intent. The case studies illustrate:

- the acquisition of specialized or rare material to enhance or complete a library collection which may be a focus for national or international scholarly research;
- the creation of machine-readable records made available through databases which are accessible by scholars at institutions nationwide;
- the preservation of collections for scholarly use;
- the creation of bibliographic records for major microform series, enabling scholars throughout the country to access individual titles within a microform set; and
- the encouragement and funding of pilot projects to develop ne methods to provide bibliographic access, enhance collections, and meet preservation needs.

TABLE 1
SUMMARY OF FUNDING: FISCAL YEARS 1977-88

Fiscal Year	Authorization	Administration Request	Congressional Appropriation	Amount Awarded
Total	$160,000,000	$29,000,00	$64,246,000	$64,238,264
1977	10,000,000	0	0	0
1978	15,000,000	5,000,000	5,000,000	4,999,996
1979	20,000,000	5,000,000	6,000,000	6,000,000
1980	20,000,000	6,000,000	6,000,000	5,992,268
1981	10,000,000	7,000,000	6,000,000	6,000,000
1982	15,000,000	6,000,000	5,760,000	5,760,000
1983	15,000,000	0	6,000,000	6,000,000
1984	15,000,000	0	6,000,000	6,000,000
1985	15,000,000	0	6,000,000	6,000,000
1986	15,000,000	0	5,742,000	5,742,000
1987	10,000,000	0	6,000,000	6,000,000
1988	(*)	0	5,744,000	5,744,000

* According to the Higher Education Amendments of 1986 (Public Law 99-498), $10,000 was authorized for FY 87 and such sums as deemed necessary for 4 succeeding years.

TABLE 2
GRANT AWARDS AND ALLOCATIONS
1978-1988

YEAR	# OF PROPOSALS SUBMITTED	# OF PROPOSALS FUNDED	%FUNDED	ALLO-CATION	AVERAGE GRANT ($MILLION)
1978	101	20	20	5	$249,999
1979	87	26	30	6	230,769
1980	71	22	31	6	272,375
1981	91	30	33	6	200,000
1982	79	35	40	5.8	165,000
1983	82	35	43	6	171,429
1984	97	35	36	6	171,429
1985	92	43	47	6	139,535
1986	97	38	40	5.7	151,105
1987	80	37	46	6	162,162
1988	93	39	42	5.7	147,282

TABLE 3
GRANT RECIPIENTS,
BY TYPE OF INSTITUTION

PUBLIC ACADEMIC	56*
PRIVATE ACADEMIC	30
PRIVATE NON-ACADEMIC**	18
PUBLIC NON-ACADEMIC***	5

* Includes 44 direct grantees and 12 institutions that have never been a grantee.
** Includes history/literature (8), scientific (7), art museum (2), and other (2) institutions.
***Includes public libraries (3), state libraries (1), state departments of education (1).

TABLE 4
NUMBER OF GRANTS PER INSTITUTION
1978-1988

NUMBER OF GRANTS RECEIVED 1978-1988	NUMBER OF INSTITUTIONS
1	26
2	18
3	11
4	13
5+	30

TABLE 5
PERCENT OF FIRST-TIME GRANTS, 1979-1988

YEAR	PERCENT OF GRANTS GIVEN TO FIRST-TIME RECIPIENTS
1979	39
1980	14
1981	43
1982	31
1983	23
1984	26
1985	17
1986	15
1987	6
1988	19

TABLE 6
DISTRIBUTION OF GRANTS
BY GEOGRAPHIC REGION, 1978-1988

REGION	# OF GRANTS	# INSTITUTIONS RECEIVING GRANTS
1-New England	48	10
2-NY, Puerto Rico and Virgin Is.	52	14
3-Mid Atlantic	39	13
4-Southeast	29	18
5-Great Lakes	29	10
6-Midwest	70	16
7-Southwest	18	9
8-Mountain/Plains	15	5
9-Pacific Northwest	10	4
10-California	41	11

TABLE 7
GRANTS AWARDED, 1978-1988
BY PROGRAM FOCUS

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Bib Control	9	13	9	13	15	18	20	20	17	22	18
Pres	4	5	2	4	1	2	2	8	4	5	2
Coll Dev	2	2	2	0	0	0	0	0	1	0	0
Bib Con & Pres	0	2	2	6	12	8	6	10	14	7	15
Bib Con & CollDev	3	3	5	4	3	4	2	2	0	1	0
Pres & Coll Dev	1	0	0	1	1	0	1	0	0	0	0
Bib, Pres & CollDev	1	1	1	2	3	3	4	3	2	2	4
TOTAL	20	26	21	30	35	35	35	43	38	37	39

PART TWO: CASE STUDIES

The case studies in Part Two were compiled by examining files at the U.S. Department of Education, and by contacting institutions that had received grants. Librarians and faculty members were asked to evaluate the impact of Title II-C projects on their particular institutions.

BIBLIOGRAPHIC ACCESS

The range and diversity of bibliographic control or access projects funded by the Title II-C Program since 1978 provide clear illustration of the research library community's emphasis on resource sharing, and of the advancing technology upon which resource sharing is built. The nation's scholars are the ultimate beneficiaries of bibliographic control projects which enable them to access the resources of libraries throughout the country. Predictably, many Title II-C funded projects have been concerned with the creation of original records for materials not represented in national data bases or otherwise made widely available to scholars. Many other projects have emphasized recataloging, reclassification, and the retrospective conversion of manually produced records. While the resulting product of these projects have most often involved the addition of data to OCLC and/or RLIN, the nation's principal automated bibliographic utilities, bibliographic information has also been recorded through traditional catalog card sets, printed guides, and data in microform ranging from microfiche to microfilm catalogs. Bibliographic records have been contributed to specialized scholarly access tools, among them such varied research sources as the Arid Land Abstracts, the National Union Catalog of Manuscript Collections, the Eighteenth Century Short Title Catalog, the United States Newspaper Project, and AGRICOLA, the online database produced by the National Agricultural Library. Several Title II-C projects have significantly strengthened the national bibliographic databases by analyzing and cataloging the contents of several large and important microform sets of specialized research materials. Many thousands of titles have been cataloged from such commercially-produced microform sets as Early American Imprints, Landmarks of Science, and the Goldsmith's-Kress Library of Economic Literature.

A considerable number of Title II-C projects have taken advantage of new technological developments or national programs designed to share bibliographic data. Such projects have utilized RLG's Chinese, Japanese, and Korean (CJK) program; the Name Authority Cooperative Project (NACO); and the Conversion of Serials Project to Cooperative Online Serials (CONSER). Other bibliographic control projects have planned and implemented local or regional online bibliographic access systems, and established a document delivery system.

Although bibliographic control projects funded by Title II-C have concentrated on providing access to printed books, there consistently have been a large number of projects to catalog or otherwise make accessible important research materials in non-book formats: government documents, manuscripts, sheet music and scores, sheet maps and maps in books, printed ephemera, phonograph records, photographs, television scripts and commercials, playbills, scrapbooks, oral history tapes, films, broadsides, trade catalogs, scientific specimens, and machine readable data files. All modern European languages as well as many from the near, middle and far east have been included.

Commenting upon the contributions made by the Title II-C Program in bibliographic control, James Michalko, President of the Research Libraries Group stated:

> Support for retrospective conversion, for preservation activities, for major bibliographic research projects and for enhancement and expansion of bibliographic standards have all enriched the Research Libraries Information Network (RLIN) database. These support activities have made unique resources widely available to the nation's scholars and helped strengthen the bibliographic infrastructure that is at the core of United States scholarly success.

K. Wayne Smith, President of the Online Computer Library Center (OCLC) points out:

> The [Title II-C] funds have created new bibliographic wealth that the grant recipients have shared with literally thousands of libraries and millions of library users.... The bibliographic information generated by the Title II-C program fuels research and scholarship at 10,000 OCLC member institutions....The Strengthening Research Library Resources Program has been highly successful in promoting research, education, and scholarship through increasing availability of information in the nation's libraries.

CASE STUDY 1

Missouri Botanical Garden and New York Botanical Garden

The Missouri Botanical Garden and the New York Botanical Garden are two of the most distinguished and comprehensive botanical/horticultural libraries in the world. It is estimated that the two libraries hold over eighty percent of the entire corpus of printed literature in plant taxonomy or systematics, plant distribution, and floristic studies. Despite complementary collections and a long history of cooperation, the libraries of the two institutions did little to coordinate their activities and jointly serve their community of scholars before the advent of the Title II-C Program. The two libraries utilized Title II-C funds to upgrade the cataloging of their respective printed collections to national standards and contributed the resulting data to the OCLC database. In the intervening years, the Missouri Botanical Garden and New York Botanical Garden have received seven additional Title II-C grants, for a total of $1,886,336, each of which continued the basic project established in 1978.

Although not unexpected, dramatic increase in both interlibrary loan and on-site use of the collections clearly indicate that the collections, with the help of Title II-C funding, have become truly national and international scholarly resources. Through data being added from the two libraries, OCLC was becoming comprehensive in its records for the plant sciences. Thus, continued funding through the Title II-C program not only improved bibliographic control over the collections of the grantee libraries, but had also greatly expanded bibliographic access to an entire scholarly discipline through a national electronic database.

CASE STUDY 2

University of Michigan
Michigan State University
Wayne State University

Another early joint Title II-C grant for $1,256,000 was awarded to the University of Michigan in 1979, 1980, and 1981. With Michigan State University and Wayne State University cooperating as subcontractors, the three libraries undertook one of the first large-scale serials conversion projects to be funded through the Title II-C Program. Upon completion, over 150,000 serial titles in the sciences, social sciences, and humanities had been converted to the MARC-S format using CONSER standards.

As a result of this Title II-C project the three largest libraries in the state of Michigan were, for the first time, in a position to coordinate their serials procedures with one another. Each of the three participants emerged from the project in possession of a database of machine readable serials records in a standard format and with a standard holdings statement that was used for such products as local union lists, online catalogs, and circulation records. At the state level, the creation of the Michigan Union List was a tangible result of the Title II-C project. In addition to greatly enhancing both OCLC and RLIN, the project had a national impact through the leadership role played by all three libraries in working out interpretations of the ANSI standard for summary holdings and in writing documentation for its use.

CASE STUDY 3

Stanford University - American Antiquarian Society

Beginning in 1981, the Stanford University Library received five consecutive grants to provide online access to the extensive microcard set, Early American Imprints: Second Series. Produced by the Readex Microprint Corporation, Early American Imprints: Second Series was based on American Bibliography: A Preliminary Checklist 1801 to 1819, compiled by Ralph R. Shaw and Richard H. Shoemaker. The Shaw and Shoemaker work, with over 50,000 items, represented the only comprehensive bibliography of American imprints for the early national period. By filming these items, Readex Microprint made them widely available for the first time.

Constituting a national collection for its period, Early American Imprints: Second Series was viewed as a major asset to the work of sociologists, political scientists, historians, philosophers, students of American culture and thought, and religious scholars. However, while many research libraries owned the microcard set, research access to its contents was limited to the printed bibliography. In the absence of full, title-by-title cataloging, the rich resources contained in Early American Imprints: Second Series remained almost invisible to the majority of library users.

The Stanford Title II-C project provided thorough bibliographic description and multiple access points in full compliance with national cataloging standards to all titles in Early American Imprints: Second Series. In order to share the data generated through the project, the records were then contributed to the RLIN database, thereby providing title-by-title access to the collection for many of the nation's major research libraries. The audience reached by the Stanford Title II-C project was a substantial one. The records were made available locally in both card catalog form and through the University's online catalog.

Through RLIN, the over 34,000 records were shared with several hundred libraries which use the database in various capacities, from bibliographic searching and cataloging to collection development and interlibrary loan. For those libraries which own the microcard series of Early American Imprints: Second Series, the Stanford records served as a guide to their own set and could be used to produce records for their own catalogs. Finally, at the conclusion of the project, a tape in full MARC format was made available at nominal cost to other bibliographic utilities and individual institutions, thus insuring that the records reached a nationwide user community.

In a Title II-C project complementary to that undertaken by Stanford, the American Antiquarian Society (AAS) cataloged Early American Imprints: First Series with grants awarded in 1986 and 1987. With $207,760 in Title II-C funds, AAS cataloged every book, pamphlet and broadside printed in the American colonies and the United States from 1640-1800. Based upon Charles Evans' American Bibliography, Early American Imprints: First Series also had been published in microcard by the Readex Microprint Corporation. Like its counterpart, the contents of the series had never been cataloged. AAS produced full MARC records for each item in the series and entered the data into OCLC and RLIN.

As a result of the Title II-C projects at Stanford and the AAS, the Early American Imprints series are now more visible to scholars. Users at libraries which own the Early American Imprints series are now able to access the contents through their local library catalogs. For scholars at institutions which do not own the microcard series, the availability of cataloging records on the national databases, OCLC and RLIN, provide bibliographic access and facilitate interlibrary loan.

CASE STUDY 4

University of South Carolina

The cataloging of the Fox Movietonenews Collection at the University of South Carolina is another example of a non-book format bibliographic control project funded through Title II-C. The

University of South Carolina was enabled, through $401,348 in federal funds, to catalog news stories from the years 1919-1934 and 1942-1944 contained in some 10,000,000 feet of film. Until it was superseded by television in the early 1960s, Fox Movietonenews was the world's largest non-print news service. Because of its wide scope, the Movietonenews Collection serves as a virtual capsule history of much of the twentieth century as seen by the newsfilm camera. The collection provides a visual dimension to world events, social and cultural change, economic trends, and scientific advancements.

Until the collection was given to the University of South Carolina, it was largely unavailable to scholars. The purpose of the Title II-C project was to catalog the film and outtakes in such a manner that the individual news stories would for the first time be accessible to scholars and the general public in an organized fashion. In order to maximize the number of access points for the many facets of news stories of interest to researchers, an online system similar to existing online databases was chosen. The cataloging produced by the Fox Movietonenews project was highly specialized and was tailored to the idiosyncrasies of existing documentation and the peculiarities of the newsfilm format itself. As a result, the project could as easily be characterized as an automated indexing project as it could a cataloging project.

The interest in the Movietonenews Collection by local university faculty and national and international film researchers has been impressive since the early days of the project. As a result of the project, film has been furnished to the Disney Channel, PBS, the BBC, and the three major commercial networks in the United States. As time has passed, it has been observed that use patterns reflect a broader, more diversified populace, indicating to the project's designers that the design of the database and the easy retrievability of the collection's contents make it appealing to the general user as well as to advanced scholars. Indeed, the design of the online database has been so successful that it has been adapted for other purposes, such as the University of South Carolina's College of Health's plan to provide multi-nation service for vector-control documents.

PRESERVATION

Preservation projects funded by Title II-C have emphasized the microfilming of deteriorated books and manuscripts, but there have been a considerable number of projects involving photographic preservation, the preservation of sound recordings, and a variety of item-specific conservation activities. In several cases, conservation equipment such as photographic and microfilm laboratory equipment, paper conservation and hand binding equipment has been purchased with Title II-C funds.

Projects which have concentrated on conservation of rare items have utilized a range of current preservation techniques, from simple cleaning and repair to rebinding, encapsulating, remounting, fumigating, and deacidifiing. Books, manuscripts, drawings, prints, architectural plans, photographs, posters, ephemera, and scrapbooks have been the objects of preservation projects.

In describing the contributions made by the Title II-C Program to the conservation and preservation of the nation's scholarly resources, Patricia Battin, President of the Commission on Preservation and Access stated:

> Between 1978 and 1988, Title II-C was the leading source of funding for preservation activities, and these grants stimulated and encouraged the development of the perceptions, strategies, and operational experience necessary for the ambitious nationally coordinated program launched in 1989 by the National Endowment for the Humanities. During this period Title II-C awarded one hundred and thirty preservation grants to fifty-nine institutions in forty-one states for a total of $13,219,195.... In its first decade, Title II-C's preservation grants represented approximately double the combined funds available from other sources.... The major strength of the Title II-C Program lies in its mandate to support preservation filming and conservation projects in all fifty states in a variety of

organizations, ranging from large research universities to historical societies to small, highly specialized collections.

The statistics indicate that during the years 1978-1988, twenty-one percent of the total funding was awarded for "preservation" projects. This traditional definition of "preservation" obscures a truly outstanding contribution of the Title II-C program to the preservation of and access to deteriorating scholarly resources. The overwhelming percentage (seventy-three percent) of Title II-C funds which were expended for bibliographic control projects, in essence, laid the groundwork for our current capability to mount an efficient, non-redundant filming program.... The resulting databases of machine-manipulative records provide us with important tools to identify and locate materials at risk, to assess collection strengths among the nation's libraries, to eliminate duplication in the reformatting process, and to reduce the burdensome cataloging costs of preserving older materials with often incomplete bibliographic records.... The success of our collaborative efforts to preserve our intellectual heritage will owe much to the philosophy and unprecedented federal support of the Title II-C legislation.

CASE STUDY 5

New York Public Library

From the inception of the Title II-C Program, the New York Public Library has concentrated its project efforts on the preservation of its holdings. As one of the world's most important and most heavily used research libraries, New York Public has a particular obligation to preserve its collections for future generations of scholars. The library terms its approach to preservation the "Great Collections" approach, a strategy which posits that a large, intellectually important collection should be preserved for the scholar or student as a unit, and that the value of such collections lies in their comprehensiveness and availability at one site. An earlier strategy, in place at NYPL before 1980, stressed spreading preservation efforts across all subject areas and all types of materials. Upon these two strategies, NYPL applied for and received six Title II-C grants in the amount of $2,304,730 for the ten-year period 1978-1987.

The purpose of the first two Title II-C grants received by NYPL was general preservation work, with a wide variety of preservation options but with no specific subject or divisional emphases. Among the preservation techniques used in these projects were microfilming, microfiching, cleaning, boxing, repairing, rebinding, chemical stabilization, and encapsulation. In 1981, NYPL was the primary grantee for a joint Title II-C preservation and bibliographic control project conducted with the libraries of Columbia University and New York University. The project was viewed as the genesis of a long-term cooperative resource sharing arrangement that would establish a regional information center for library users in the field of art and architecture. As a result of the project, New York Public with the two other libraries had helped to expand the national computerized bibliographic record of major art resources by contributing data to RLIN.

In 1984 and 1985, NYPL received Title II-C grants to aid in the preservation and rehabilitation of its nationally significant World War I Collections, a comprehensive resource consisting of over 35,000 items: periodicals, monographs, pamphlets, broadsides, scrapbooks, maps, and manuscripts. The project combined filming and artifactual preservation, and data was entered into RLIN in order to share bibliographic information and to make the collection itself better known and more widely available.

New York Public's 1986 Title II-C grant combined a preservation component with both bibliographic control and collection development aspects. The purpose of the project was to conserve, restore, catalog, and enhance the Slavonic Division's collection of imperial Russian political, social, and literary journals. Two byproducts of the Title II-C grant were the ability of the Division to subsequently obtain a National Endowment for the Humanities grant to enhance the library's periodical collection for

the Soviet period, 1918-1940; and the creation and publication of an up-to-date inventory of the entire pre-Revolutionary periodical collection.

CASE STUDY 6

Boston Public Library

Of the seven Title II-C grants received by the Boston Public Library, five have concentrated on preservation with the emphasis being placed upon the microfilming of deteriorating research materials. For example, Boston Public's 1985 and 1987 Title II-C grants, which totaled $384,543, permitted the library to significantly expand its twenty-year effort to preserve all Massachusetts newspapers. Keenly aware of Massachusetts's historical importance, Boston Public's commitment to preserving the history of the Commonwealth through the preservation of three hundred years of newspaper publication was viewed as a project of national significance. Through the project, Boston Public filmed over 10,000 reels of microfilm containing over 2,500,000 frames. Once filmed, the negatives were stored in Boston Public's vault and positive copies were made for research use both at Boston Public and at cooperating institutions. The original newspapers were wrapped in acid-free paper and placed in storage. The bibliographic results of the project were reported to the national research tools, Newspapers on Microfilm-United States and the National Register of Microform Masters.

The Title II-C grants which supported Boston Public's newspaper filming efforts proved pivotal to the overall success of the library's endeavor, becoming the basis for further funding from the National Endowment for the Humanities. Researchers have made extensive use of the newspaper microform collection at Boston Public. Use of the collection is varied as well as heavy. Student use begins at the secondary level. Scholarly use continues from undergraduate through doctoral levels, and by independent researchers writing major works. Editors, writers, and publishers make extensive use of the collection, and the newspapers are used for legal research as well.

CASE STUDY 7

Emory University

Emory University received $92,173 in Title II-C funds in 1986 for the preservation, cataloging, and retrospective conversion of important eighteenth century imprints in the subject areas of philosophy and religion. The library's preservation officer reviewed some 17,000 items and devised a plan to integrate preservation functions with retrospective conversion activities. The items were screened for preservation treatment following cataloging, and the library's online catalog was used for identifying material for future restoration or preservation microfilming.

Because of the size of its project, Emory developed a management system to control workflow. The library was a demonstration site for the development of the IBM-based DOBIS/Leuven library automation system, and utilized this system to store and retrieve preservation information. The DOBIS preservation management system was intended to have application well beyond the Title II-C program, and it is currently being used to queue material for future replacement or reformatting.

COLLECTION DEVELOPMENT

Research materials purchased with Title II-C funds have spanned a wide range of subjects in the humanities, sciences and social sciences. Acquisitions in art, theater, music, mathematics, geology, poetry, philosophy, anthropology, musicology, folklore, aquaculture, economics, and European jurisprudence provide some indication of the diversity of purchases made through Title II-C grants. Area studies and foreign language materials have frequently been acquired with emphasis on Soviet and East European studies, Latin America, and the Far East. In addition, a few projects have concentrated on

Africa and the Pacific islands. Some projects have focused on particular nations, such as Iran, Italy, Mexico, Costa Rica, and India.

Because of the Title II-C Program's emphasis on advanced research, materials acquired with federal funds have tended to be uncommon, and often rare, items found in few, if any, collections in the United States. Both current and retrospective research materials purchased with program funds most often have been out of the mainstream of material routinely acquired through normal library acquisitions policies and procedures. There is no evidence that program funds have ever been substituted for routine acquisition funds; rather, federal funds have served as budget enhancement.

In addition to uncommon printed materials, Title II-C funds have enabled libraries to purchase microform editions and facsimiles, sometimes especially commissioned, of rare materials; foreign doctoral dissertations on a wide variety of subjects; rare books; manuscripts and archival collections; foreign newspapers; foreign government documents; and rare musical recordings.

Remarking upon the effect of the collection development component of the Title II-C Program, David H. Stam, University Librarian at Syracuse University and a long-time observer of collection development issues confronted by the nation's libraries, stated:

> Although primary emphasis in Title II-C grants has been on the accessibility and preservation of existing collections in the nation's research libraries, grants for collection development have significantly enhanced those collections with scarce and sometimes unique research materials. In a period when foreign acquisitions have generally suffered (due to drastic increases in serial and periodical costs), Title II-C provided some relief for institutions building research collections in foreign languages and cultures. The range of such coverage is impressive, from Italy, Iran, and India to Latin America and the Soviet Union.
>
> The integration of collection development grants with other aspects of the Title II-C program has shown other ancillary benefits. The inclusion of these new collections in national online databases, OCLC and RLIN, has made the initial investment more widely accessible. At least one project led to the development of a coordinated acquisition program of complementary rather than duplicative materials. These grants also created incentives for cataloging and preservation of allied collections, making useful what was formerly inaccessible. Publications and printed guides useful to scholarship have also resulted from these grants. Considering the rather modest funds so far devoted to collection development in Title II-C, the results appear to be valuable far beyond the numbers involved.

CASE STUDY 8

University of Illinois at Urbana-Champaign

The Title II-C grants submitted by the University of Illinois at Urbana-Champaign were unusual in that they consistently included components for collection development; indeed, three consecutive grants totaling $260,136 were concerned exclusively with collection development. The funded projects have varied widely in terms of the collections which have been strengthened through Title II-C, and include Italian history, Slavic mathematical and geological serials, legal history, and Latin American maps. Although Title II-C funds strengthened the collections owned by and housed at the University of Illinois, the effect of the newly acquired material was national, and in some cases, international, in scope. This was true in part because bibliographic information was contributed to OCLC, thus making the nation's scholarly community aware of the material. But Illinois has also made much of the acquired material available through interlibrary loan and in one instance through a document delivery program. One of the Title II-C projects led to a coordinated acquisitions program with another university whereby the two institutions acquire complementary rather than duplicative materials.

In 1978 and 1979, Illinois received Title II-C funds to strengthen its holdings in northern Italian history. The basis of the library's strength in this field dated from a large purchase, the Cavagna Collection, made by the university in 1921. The same Title II-C grant project also made it possible for Illinois to add materials to its important Russian and Soviet collections; this project was continued by a third grant in the amount of $64,920 (bringing the total to approximately $160,000) in 1980. At the time of the project, Illinois already possessed one of the largest and most complete collections on Russia and the Soviet Union in the United States. In 1976 the university inaugurated a Slavic Reference Service in order to share its collections and bibliographic expertise, both through interlibrary loan and as a central clearinghouse and resource center.

With Title II-C funds, the library significantly augmented its collections by adding 8,000 out of print monographs (chiefly on microfilm) and some three hundred serial runs unique outside the Soviet Union. In order to make the newly acquired materials known to the widest possible audience, all materials were cataloged into the OCLC database and microfilm records were submitted to the National Register of Microform Masters. In addition, a series of "quick lists" were compiled and mailed to scholars in relevant fields.

Illinois' 1981 and 1982 projects complemented the mathematics portions of its preceding grants. The two grants, which totaled $266,143, concentrated on acquiring some 1,500 mathematical monographs and creating and entering bibliographic data for all the library's mathematical holdings onto the OCLC database. Data for over 27,000 monographs and 1,400 serials were generated and input into OCLC.

The 1983 project included a $20,000 acquisitions component within a $110,683 project aimed at strengthening and sharing its collections in western European legal codes. Undertaken by the University of Illinois Law Library, this project was based upon the growing scholarly interest in European law and legal systems in the wake of increasing post-World War II American involvement in the European community. In addition, the project's intent was to catalog its European historical law collections via OCLC. Through the Title II-C project, the University of Illinois was the first library to enter data into OCLC using the Library of Congress' new law classification scheme; as a result, the project served as a model and test case which benefitted the Library of Congress in refining the classification scheme. A commitment to interlibrary loan insured that these materials continue to be made available nationally.

In 1984 and 1985, Illinois received a total of $307,529 in Title II-C funding. In both years, one component of the Illinois proposal combined collection development and bibliographic control in a project benefitting the Map and Geography Library. The map project's principal goal was the inputting of the library's sheet map holdings into the OCLC database. The addition of 30,000 titles and 325,000 sheets to OCLC was estimated to increase OCLC's total map data by nineteen percent.

In 1987, Illinois received $141,969 in Title II-C funds to strengthen its elementary and secondary curriculum and textbook collections; of the total, $38,060 was designated for collection development with the remainder being used for bibliographic control. Illinois' Curriculum Collection is one of only a few large historical collections of curriculum textbook materials. The goals of the project were to catalog the 12,000 uncataloged titles and enter the bibliographic data into OCLC, and to acquire additional historical curriculum materials.

CASE STUDY 9

Duke University
University of North Carolina at Chapel Hill
North Carolina State University

In 1978, Duke University served as the primary grantee for a major cooperative collection development project that also distributed Title II-C funds to the University of North Carolina at Chapel Hill and North Carolina State University. The purpose of the grants, which totaled $500,000, was to

promote continued cooperative collection development among the three institutions and especially to help meet the demands of a growing research community as typified by scholars at the nearby National Humanities Center. With grant funds, the three libraries purchased both current and retrospective research materials that built upon each library's distinct subject and area strengths as agreed upon under existing collection development protocols.

Through the Title II-C project, the Duke library increased its holdings in the history, economics and literature of the Soviet Union and Poland. Also acquired were British history and literature materials of the eighteenth and nineteenth centuries, such as city directories, local history, and microfilm collections of British documents and manuscripts relating to socialism. For the library's Ibero-Latin American Collection, materials pertaining to the history, economy and culture of countries such as Brazil, Peru and Mexico were acquired. Added in the North American area were microfilm runs of several important U.S. newspapers and collections of political papers.

The University of North Carolina also strengthened its Russian holdings, concentrating on the pre-revolutionary period. Additions were made to the Eastern European, Latin American, and North American collections.

The scope of North Carolina State University's Title II-C component was narrower than that of the other two institutions. The majority of its funds were expended for two microform collections: U.S. Patents for 1946-1965, and a sizeable segment of Government Research Reports. The remainder of its funds were used to complete journal runs in fields such as history of science, engineering, and architecture.

In addition to strengthening the collections of the three participating institutions, the Title II-C grants had given considerable impetus to the libraries' commitment to cooperative purchasing. While areas of collecting concentration had been designated for several decades, they were reviewed in connection with the project, and as a result were more clearly defined with a view to avoiding duplication and building on complementary strengths.

The primary goal of the Title II-C program at the three institutions was to provide materials within a cooperative framework for the scholarly communities at the three universities and their counterparts at the National Humanities Center. It has been noted by scholars that the fields central to the humanities disciplines are well supported by the collections at the three institutions, due in no small part to the funds expended under Title II-C.

CASE STUDY 10

University of California at San Diego

In 1983 and 1984, the University of California at San Diego received Title II-C grants totaling $374,518 to acquire, preserve, and process unpublished research materials in Melanesian Studies. Melanesia has long been an important region for anthropological fieldwork among tribal societies, but with the rapid social change occurring in many parts of Melanesia, the nature of anthropological research in the region is also changing. Anthropologists are increasingly turning to libraries and archives as primary sources of research data, and the University of California at San Diego's Melanesian Studies Resource Center has built the largest collection on Melanesian ethnology in North America, answering a critical need in the field of anthropology.

Many of the resources in the Melanesian Studies Resource Center were acquired and processed with Title II-C funding. Materials acquired, chiefly on microfilm, included unpublished papers and field notes of Melanesian scholars, both living and deceased; early government documents; newspapers, periodicals, and other serials; and unpublished dissertations. Among the most important materials acquired were Australian and British government patrol reports, beginning in the 1890s. The patrol

reports contain some of the earliest written descriptions of many tribes and, as such, are a rich source of information on the history and ethnography of the area.

Microfilm sets of many other archival materials also were added to the collection under the auspices of the Title II-C project, including items from the Fiji National Archives and the archives of various missionary organizations in Melanesia. Most of these materials were unavailable in any other library in North America. Approximately half of the collection's 4500 monographs and four hundred serial titles were acquired and processed with Title II-C funds. The Center also has a small but growing collection of original manuscripts and archives for Melanesia, which have been reproduced on microfiche and distributed to research libraries in Melanesia in order to fulfill the Center's goal of repatriating the results of anthropological fieldwork to Melanesia.

Due in part to the funding received under Title II-C, the Melanesian Studies Resource Center serves the entire international research community as the nucleus of a recognized center for Melanesian scholarship.

CASE STUDY 11

University of Vermont

In 1987 and 1988, the University of Vermont received Title II-C grants totaling $194,286 to acquire, preserve, and make available a large body of Canadian government documents pertaining to the issues surrounding acid rain; of the total, $30,357 was allocated for purposes of collection development. With Title II-C funding, over 1,600 titles (totaling well over 100,000 pages) were identified, of which eighty percent have been acquired by the University. As a result, the University of Vermont has the most comprehensive collection on acid rain in the United States. With Title II-C funding, the University sought out the "fugitive" material on acid rain issued by government agencies, environmental agencies, and agricultural experiment stations in the form of reports, technical papers, and other materials not distributed through conventional publications channels.

Materials collected under the auspices of the grant have been made available nationally and internationally. Catalog records have been contributed to OCLC and AGRICOLA, produced by the National Agricultural Library. While the dissemination of the documents acquired through this project has been accomplished through the use of conventional interlibrary loan, the grant also funded a CD-ROM product as a means of both preserving and disseminating the documents. The discs contain the full text of a subset of the acid rain material as well as advanced search and retrieval software.

GRANTS IN THE FIELD OF MUSIC, 1978-1988

The preceding case studies were selected to illustrate the variety and scope of Title II-C projects within each of the principal funding priorities established by the authorizing legislation. An equally useful device is to trace all grants made by Title II-C in a specific scholarly discipline. Music was chosen because Title II-C grants have consistently been made to projects in the field across the decade, because grants have supported music projects in all three of the program's funding priorities, and because the various music projects provide a particularly good example of the cumulative effect of Title II-C funding within a single, well-defined subject area.

In an evaluation of Title II-C grant projects in the field of music, Professor D.W. Krummel of the School of Library and Information Science at the University of Illinois at Urbana-Champaign noted:

> The three goals -- access, preservation, acquisition -- overlap in many projects. This is understandable, since the pervasive goal is usually one of organization, and the handling

> of fragile items naturally encourages the efficiences of merging activities.... Those very academic specialties that are served by Title II-C supported projects, in fact, are commonly identifiable as areas of growth.... In many ways Title II-C has been a good example of the 'Library as an Agent of Change'.... Without any doubt the HEA Title II-C program has been immensely significant to music scholarship...the program's continued and enhanced support must be recognized as a long-term national priority.

Wayne Schneider, Editorial Coordinator of Music of the United States of America, a new series of music publications sponsored by the American Musicological Society, commented:

> The Title II-C program helps MUSA and, indeed, all scholars interested in American music in three important ways. First, II-C encourages collecting. Collections...are, by and large, more easy to study and think about than the same material scattered about in different locations. Second, II-C encourages preservation. In the case of music, old recordings and sheet music, in particular, need special care lest they disappear forever. ...And third, the whereabouts of materials collected and preserved, through computer wizardry, supported by II-C funding, are consequently advertised generally, thereby making important resources available to interested scholars.

Yale University - 1978

The first Title II-C grant in the field of music was awarded to Yale University in 1978, as part of a larger bibliographic control and preservation grant totaling $149,800. The project's music component was a preservation project concentrating on the Yale Collection of Historical Sound Recordings, a heavily used and deteriorating collection of tapes, phonograph recordings, wax cylinders and manufacturers' catalogs. At the time of the grant, the collection consisted of some 100,000 recordings of growing interest to scholars using non-literary, "direct" source material. A sizeable portion of the collection was seriously deteriorating at the time of the Title II-C grant. Specific preservation measures undertaken included the dubbing of sound recordings and the microfilming (120,000 frames) of manufacturers' catalogs.

In addition to preservation, the work done during the course of the project and since its completion has provided major improvements in bibliographic access to the materials, previously accessible only in minimal fashion. As a result of the project, it is now possible for researchers to identify materials in the Yale collections and to have access to a valuable body of sound recordings and manufacturers' data heretofore too fragile for use. Without Title II-C funding, little of the work completed through the project would have occurred.

Rutgers University - 1979

In 1979, Rutgers University received a $200,000 Title II-C grant for four distinct projects, one of which ($24,888) enabled its Institute of Jazz Studies to preserve and acquire additional materials for its printed, film, and audio collections. At the time of the Title II-C grant, the collection consisted of more than 50,000 phonograph records; numerous tapes, cylinder recordings and piano rolls; a library of some 3,000 books; jazz periodicals from throughout the world; record catalogs; and photographs, films, videotapes, memorabilia, and sheet music. The Institute of Jazz Studies provides extensive reference and consultative services to other music collections, libraries, archives, newspapers, broadcast networks, and book and magazine publishers.

The Title II-C grant allowed the Institute to acquire materials in various formats in an effort to close the gap between its insufficient financial resources and the great outpouring of jazz materials during the 1970s. More than two thousand phonorecords, many of them out-of-print collectors items, were added to the archives, as well as two hundred and fifty book titles. Periodical subscriptions and back issues were acquired as well as dissertations on microfilm. The grant also provided funding to preserve fragile and deteriorating resources for future scholarly research.

Brown University - 1980, 1981, 1982

Beginning in 1980, Brown University received three consecutive multi-project Title II-C grants, each of which contained a component intended to make accessible the library's large and important collections of sheet music. Containing some 500,000 items, Brown's sheet music collections are among the largest in the United States and had long been in heavy demand by scholars. The collections span the eighteenth century to the present with particular strengths in American music of every type and genre. Because of its size, the collection had never been cataloged, a situation virtually universal among large sheet music collections at the time the Title II-C grants were received. With $190,566 in Title II-C funds from a total of $606,097 received, Brown set out to catalog 4,936 titles (6,000 items) from its American vocal sheet music collection into the RLIN database. An important and innovative aspect of the project was the exploration of the full potential of the MARC scores format.

Because many of the procedures used by Brown in its Title II-C project were innovative and widely applicable to other sheet music collections, grant funds were used to produce a manual for processing and cataloging sheet music, which was published by the Music Library Association.

Brown's 1982 Title II-C sheet music grant contained a preservation component, in addition to bibliographic control. With grant funding, two thousand items, mostly musical settings of American poetry, were preserved.

An effort has been made at Brown to gauge the effect of the Title II-C sheet music grants and, while the evidence is mostly anecdotal, staff opinion is that bibliographic data added to the national databases through the project has been of considerable use to the scholarly community.

Pierpont Morgan Library - 1983, 1984

The Pierpont Morgan Library received a total of $187,131 in 1983 and 1984 for two projects concerned with the preservation and bibliographic control of manuscript materials. One of these projects, which received just over $79,000 in Title II-C funds, concentrated on letters and autograph materials in the library's Gilbert and Sullivan Collection. The collection, generally considered to be the single most complete Gilbert and Sullivan archive, consists of approximately 4,500 autographed letters as well as a large number of letters from other writers of interest. Together, the collection contains some 25,000 items and, as a consequence, constitutes one of the largest and most important collections of nineteenth century British theater and music in the United States.

Despite its value to researchers, the collection had not been cataloged nor had information about its contents been made fully available to the scholarly community. And while the collection had served as a basis for a number of biographical works about Gilbert and Sullivan, by far the greater portion of the collection remained unpublished and virtually unknown. The Title II-C project was aimed at rectifying this situation and preserving the material. Cataloging data was disseminated through the Archives and Manuscript Control (AMC) program of RLIN and through the National Union Catalog of Manuscript Collections.

The Title II-C project was the inaugural effort undertaken by the Morgan Library to catalog its manuscripts into a national database, using the latest standards for processing in an environment that provides wider access and the potential of shared information. The experience gained through the project has greatly enhanced the library's capabilities for cataloging manuscript materials and for sharing bibliographic information.

University of Tennessee - 1983

In 1983, the University of Tennessee received $51,918 in Title II-C funds for a project to convert music cataloging records not already found in OCLC into machine readable form. Grant funds were used for searching all unconverted music records, mainly for scores, monographic publications (this was the

first Title II-C grant awarded for cataloging books in the field of music), and phonorecordings, and for inputting new records into OCLC. There were 13,633 titles requiring conversion identified, with 11,888 edited and 1,145 original records added to the database.

Beyond adding significant new data to a national database, the Tennessee Title II-C project was of considerable importance because the grant funded a procedures manual specifically addressing the retrospective conversion of music materials.

Syracuse University - 1984

In 1984, Syracuse University received $132,360 in Title II-C funds in order to preserve and make bibliographically available the Belfer Audio Laboratory's important collections of recorded cylinders, which date from 1890-1920. Founded in 1963 with the acquisition of the Joseph and Max Bell Collection, the holdings of the Belfer Audio Laboratory have since grown to more than 250,000 discs, 7,000 cylinders, and 5,500 tapes. It includes recordings of early radio broadcasts and unreleased discs from major recording studios, as well as the voices of important individuals ranging from Louis Armstrong to Albert Einstein. The laboratory itself, which was constructed in 1982, is the first structure in the world designed specifically for the restoration, preservation, and collection of historic audio materials.

Utilizing the facilities of the Belfer Audio Laboratory and the library's collection of cylinders, the preservation aspect of the Syracuse Title II-C project consisted of two components: the reorganization and proper storage in steel cabinets of the collection of over 7,000 cylinder recordings, and the re-recording of 1,500 cylinder records containing English lyrics or spoken words. In 1984, there were no standardized methods for re-recordings, and differing professional opinions regarding the best methods for faithfully recapturing sound had led to a certain level of controversy in the audio archival field. Given this controversy, and the lack of documentary evidence comparing one procedure to another, a major objective of the Syracuse Title II-C project was to test the principal existing re-recording technologies using large enough samples to make feasible future comparative studies of the technologies employed.

A second significant component of the Syracuse project was the development of an innovative bibliographic control program for the recorded cylinder collection. The cylinder itself was used as the primary source for gathering bibliographic information. An outside vendor used the microfilmed image of the cylinder to generate a computer output microfilm index and a MARC formatted computer tape for the collection. The index provided access to titles, personal names, and to manufacturers' names linked to issue numbers. The microfilm index was the basis of full cataloging, which was initially done on a microcomputer. Records on the microcomputer were formatted using dBASE III to look much like an OCLC screen, thus facilitating data entry into OCLC.

A third component of the Syracuse project was a pilot interdisciplinary retrieval system design that provided a model for non-traditional subject access to sound recordings. This aspect of the project attempted to develop information retrieval guidelines to meet the widely varied needs and expectations of an interdisciplinary group of users. Subject specialists in five different scholarly fields -- U.S. history, music and art history, linguistics, and Afro-American history -- analyzed one hundred and twenty of the re-recorded cylinders with their transcripts, and supplied relevant subject headings. The results suggested that a successful interdisciplinary retrieval system requires discipline-specific identifiers. The project also demonstrated that, even though a system will require assigning content identifiers on a recording by recording basis, discipline by discipline, such a system is ideally suited to computer retrieval and mass dissemination.

Dartmouth College - 1985, 1986, 1987

Over a three-year period, Dartmouth College received $733,943 in Title II-C funding to preserve and make bibliographically accessible its collections in theater and the performing arts, collections that contained within them important musical holdings including libretti, programs, playbills, and sheet

music. From a series of scattered collections, Dartmouth had over the years consolidated and augmented its theater holdings so that the collection had become a national resource, known as the Williams/Watson Theater Collection. The purpose of the Title II-C grant was to preserve, catalog, and index the Williams/Watson Collection's 8,000 plays, 15,225 theater programs and playbills, the contents of 4,881 theatrical information files, and 8,977 pieces of sheet music. A total of 37,474 items were cataloged, 21,868 records were added to the RLIN and OCLC databases, and 27,477 entries were made into three local specialized databases.

The playbills in the Williams/Watson collection were cleaned and placed in appropriate protectives enclosures such as acid-free envelopes. The extensive program and playbill collection, primarily American and British, was entirely reorganized by theater rather than by play title. A specialized local database, called PLAYBILL, was devised to list every play on every program in the collection. The PLAYBILL file is indexed by theater name, title of play, year of performance, and performing company.

Also with Title II-C funds, some 4,000 pieces of sheet music were cataloged to a very high standard of bibliographic description and access. In order to provide better access to music in such miscellaneous formats as albums and anthologies of popular songs, a specialized local database, G MAJOR, was created as a component of the College's online catalog. A third local database, THESPIS, was developed to provide bibliographic access to a wide range of theatrical materials including clippings, publicity stills, manuscripts, photographs, and pamphlets.

Associated Music Libraries Group
Eastman School of Music, University of Rochester (Primary Grantee) - 1985, 1987

In 1985, three members of the Associated Music Libraries Group -- the Eastman School at the University of Rochester, Indiana University, and the University of California-Berkeley -- initiated a pilot project, with Title II-C funds, to demonstrate the feasibility of innovative methods and standards for the retrospective conversion of bibliographic information in the field of music. Building on the pilot project through a 1987 grant, Harvard, Yale, Stanford and the University of Illinois at Urbana-Champaign joined the three pilot institutions and undertook the retrospective conversion of 48,130 manual bibliographic records for printed music for entry into the RLIN and OCLC databases. Funding for both Title II-C projects totaled $688,146, with the pilot project having received $233,000.

The Title II-C grants awarded to the Associated Music Libraries Group (AMLG) through the Eastman School were in direct response to the national imperative expressed through a conference conducted by the Council on Library Resources. From this conference emerged the "National Plan for Retrospective Conversion in Music." The Title II-C grants radically increased the usefulness of the national databases by converting the catalogs of several of the nation's oldest and most respected music collections. The grants also increased the quantitative scope of the national databases by providing for the conversion of almost 79,000 records to machine readable form. The cooperative nature of the grant avoided duplication of effort in the retrospective conversion process, and was particularly important in that both OCLC and RLIN were involved.

Results of the Title II-C project have been numerous and varied. All of the AMLG libraries have experienced extraordinary increases in the number of interlibrary loan requests as a result of the Title II-C project. The project has also had a very beneficial effect on the cataloging efforts of other music libraries.

N.B. The AMLG project was continued in 1988 and 1989, with the addition of Cornell University and with Indiana University as the primary grantee; total Title II-C funding for these two years was $463,956 for a grand total of $1,152,102.

Indiana University - 1986, 1987, 1988

From 1986 through 1988, Indiana University received three Title II-C grants, totaling $305,925, to conserve and make bibliographically accessible its extensive holdings of operatic scores and recordings. The breadth and depth of Indiana's opera collections have contributed to its music libraries' national preeminence. The project cataloged 14,925 sound recordings, eight hundred tapes, and 1,290 scores and libretti drawn from both the School of Music Library and the Lilly Library. In addition, two hundred scores were bound and rare scores from the Lilly Library were repaired.

Cataloging sizeable components of the Allen, Ehret and Mayer collections was the primary focus of Indiana's three Title II-C grants. These collections contain opera recordings on disc and tape. All cataloging employed full AACR2 standards and OCLC Input Standards - Level I. Among other enhancements, complete access points were provided for each performer in complete operas and anthologies and for each selection within anthologies. Indiana's 1986 Title II-C project included a component for the preservation of its rarer and more fragile scores.

N.B. Indiana's opera materials project was continued by a fourth Title II-C grant in 1989, for $112,332.

University of Wisconsin - 1986

The University of Wisconsin received $107,952 in Title II-C funds in 1986 to preserve and make accessible a large collection of musical theater materials in its Tams-Witmark Collection. The collection consists of over 37,000 production materials (scores and scripts) for 1,620 musical stage shows representing a wide range of musical traditions including opera, musical comedy, burlesque, and minstrel shows. The collection is particularly strong in American materials from the 1880s to the 1920s.

Bibliographic control of the Tams-Witmark collection was achieved through the application of the Archives and Manuscripts Control (AMC) format, an innovative use of the format developed by the Research Libraries Group. The Wisconsin Title II-C project was, for the time, the largest application of the AMC format in OCLC's history and one of the first major projects to apply the AMC format to non-archival, non-manuscript materials. A total of 2,929 bibliographic records were contributed to the OCLC database. The principal underlying the use of the AMC format in processing the Tams-Witmark Collection was the conviction that scholarly access would best be served by drawing together all manifestations of a given musical show, regardless of the language, format, variation, or truncated title. A major advantage of the AMC format was that, while providing automated access to the collection, it preserved the intellectual and physical integrity of the collection while accommodating collection-specific data appropriate to sophisticated scholarly expectations.

The Tams-Witmark Collection project also involved cleaning, preserving and storing 25,000 items in the collection.

University of Virginia - 1987

A Title II-C grant awarded to the University of Virginia in 1987, for the amount of $89,999, was used to establish a model for the cataloging of pre-1900 libretti. The collection which served as the model's test was the microform edition of the Library of Congress's Albert Schatz Collection of libretti, the largest single collection of historical libretti in the United States. The strength of the collection is such that it contains first or early editions of the libretti for virtually all the major opera houses in Europe for nearly three hundred years. The Schatz Collection was chosen as the basis for developing an automated cataloging model because of its scope, because it would establish a database against which other holdings could be compared, and because the University of Virginia already had access via a microfilm copy.

Libretti have long been recognized by theatrical and musical researchers as a rich primary source of historical information. Each libretto represents a specific production and constitutes the most complete

-- and in some cases the only -- documentation available for that production. Libretti are used by musical editors, biographers and lexicographers, and dance historians, among others.

The Virginia project was based upon guidelines developed by the Repertoire International des Sources Musicales (RISM), which established a comprehensive definition of "libretto,", and developed guidelines which would accommodate within the MARC format all desirable points of data for libretti. The Virginia Title II-C project cataloged 2,835 nineteenth-century Italian libretti from the Schatz Collection, one quarter of the collection's total. All cataloging data was made available nationwide via the RLIN database and provides a sizeable corpus of data that other libraries may use for their own cataloging.

Response from the scholarly and professional library community to the Virginia Title II-C project has been substantial. Several institutions with strong collections of libretti have sought information about Virginia's cataloging procedures. As evidenced through RLIN searching and from direct scholarly enquiries, the project has already demonstrated its utility to researchers. With grant funding, the University of Virginia intends to catalog the entire Schatz Collection, thereby expanding the current database and providing a basis for an international inventory of historical libretti.

N.B. Virginia's libretto project was continued by a second Title II-C grant in 1989, in the amount of $105,071.

END NOTES

1. 20 USC 1041.

2. ibid.

3. Unless otherwise noted, all data included in this study covers the eleven years from 1978, the year in which the Title II-C Program awarded its first grants, through fiscal year 1988. Pertinent information relating to fiscal year 1989 is for the most part included in the footnotes.

4. U.S. Senate. Committee on Labor and Public Welfare. "Education Amendments of 1976," 94th Congress, 2d session, 1976. S. Rept. 94-882, p.9.

5. The literature on Title II-C consists, for the most part, of announcements or brief descriptions of funded projects, an occasional exchange as to the fairness of the law's provisions and the regulations whereby it is administered, or expressions of support for continued funding. The most complete narrative and statistical description of the program is the continuing series of articles submitted by program staff to the Bowker Annual of Library and Book Trade Information. See "Higher Education Act, Title II-C, Strengthening Research Library Resources" in editions of the Bowker Annual beginning with the 24th edition (1979). Information is also included in the Department of Education's abstracts of funded projects, with the 1988 compilation providing a useful statistical overview for the years 1978 through 1988. See U.S. Department of Education, Office of Educational Research and Improvement, Strengthening Research Library Resources Program, Abstracts of Funded Projects.

An impartial critical analysis of Title II-C is contained in Frank W. Goudy's "HEA, Title II-C Grant Awards: A Financial Overview from FY 1978-79 Through FY 1981-82," Journal of Academic Librarianship, VIII (November 1982), pp. 264-269.

6. Abigail Studdiford's Historical Review of Projects Funded Under Title II-C of the Higher Education Act of 1965: Strengthening Research Library Resources, 1978-1981 was commissioned by the Department of Education in 1982. Although it surveys only the first four years of the program, Studdiford's report provided a succinct history of policies and events that led to Title II-C; examined the achievements of funded projects in relation to their stated objectives; and described the mechanics of the program including standards of eligibility for assistance, scoring and the review process, geographic representation, and budget and reporting requirements. Studdiford concluded that Title II-C was a significant program which after only four years had "given the nation tens of thousands of unique titles acquired for scholarly investigation, thousands of fragile and irreplaceable volumes preserved for long term use, and hundreds of thousands of bibliographic records linked through online data files, in a format which will enable individual research scholars to locate items not held at the local research library." (p. 152)

7. No statistics have been compiled, for example, on the total number of bibliographic records created through Title II-C projects, or the cumulative number of books and other materials acquired by research libraries with Title II-C funding.

8. Again in 1989, the total number of grants received declined, to 83. This indicates the possibility that continued growth in the number of applications received may have peaked.

9. A slight decrease in the number of grants awarded (32) occurred in 1989.

10. The average grant size in 1989 was $177,344, an increase over the preceding three years but still below the preceding 10-year average.

11. In 1989, the Jewish Theological Seminary and Mississippi State University raised the total number of institutions receiving grants to 112. While indicative of the slow, steady increase in the number of institutions participating in the Title II-C program, the addition of these libraries did not alter significantly the institutional profile as it stood in 1988.

12. The number of first time grants rose in 1989 to 40, or 36% of the total.

13. In 1989, SUNY-Buffalo and the University of Kansas joined the ranks of those institutions receiving over $1,000,000 in Title II-C funds, bringing the total to 25. While this raises the total funds awarded to those institutions to $41,303,116, the percentage of total funds awarded to those institutions was reduced slightly, to 60%. Neither SUNY-Buffalo nor the University of Kansas has participated in a joint multi-institutional project.

14. Mississippi received its first grant in 1989.

15. This trend did not vary significantly as a result of 1989 grants. New York and California received four additional grants each, for a total of 56 and 47 respectively. Illinois received three grants for a total of 46.

16. In 1989, bibliographic control retained its strong lead in terms of funds awarded, $4,674,002, or 82% of the total. Preservation declined again, to $591,729, or 11% of the total. In contrast, collection development increased from 1% in both 1987 and 1988 to 7% ($409,269) of the total in 1989. It is too early to know whether the four grants that were either exclusively or partially funded for collection development represent more than an anomaly, but it is worth noting that collection development has not received more than 7% of total funding in any one year since 1980 (7% was received in 1981 and 1984).

17. U.S. Department of Education, Office of Educational Research and Improvement, Strengthening Research Library Resources Program, Abstracts of Funded Projects 1988, Table 3 and Chart 2.

18. Ibid., Table 5.

19. "Strengthening Research Library Resources Program (HEA Title II-C)," Bowker Annual of Library and Book Trade Information, 1990-1991 edition (New York: Bowker, 1990), p. 264.